

**Louisiana Department of Environmental Quality (LDEQ)
Office of Environmental Services**

STATEMENT OF BASIS

**Ruston Storage Compressor Station
Agency Interest No.: 26802
CenterPoint Energy Gas Transmission Company
Activity Number: PER20090002
Proposed Permit 1720-00028-V5**

I. APPLICANT:

Company:

CenterPoint Energy Gas Transmission Company
1111 Louisiana
Houston, TX 77002

Facility:

Ruston Storage Compressor Station
8 miles North of Ruston, Lincoln Parish, Louisiana
Approximate UTM coordinates are 536.5 kilometers East and 3609.5 kilometers North, Zone 15

II. FACILITY AND CURRENT PERMIT STATUS:

Center Point Gas Transmission's Ruston Storage Compressor Station is an existing natural gas transmitting facility. The facility currently operates under Permit No. 1720-00028-V4, issued March 23, 2009.

This is the Part 70 operating permit renewal for the facility.

III. PROPOSED PERMIT / PROJECT INFORMATION:

Proposed Permit

A permit application was submitted by CenterPoint Energy Gas Transmission Company and received on September 28, 2009 requesting a Part 70 operating permit renewal/modification for the Ruston Storage Compressor Station. Additional information as of October 20, 2009 was also received.

Project description

The Ruston Storage Compressor Station is a natural gas transmission facility that compresses gas from incoming pipelines into a nearby underground storage field. Gas also flows through the station when it is returned from the storage field into outgoing pipelines. A 4,000 hp natural gas-fired reciprocating engine is used to drive a compressor which pumps gas through the pipeline system. A glycol

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dehydrator is used to remove moisture from the gas during withdrawal from the storage field. The emergency generator supplies electrical power as needed. Saltwater separated from the natural gas stream is stored in three tanks and removed from the site via tank truck. Annual natural gas throughput is 3,000 MM scf.

The facility will operate under two scenarios. The use of a condenser with noncondensables routed to the reboiler for the control of emissions from the glycol dehydrator still column vent represents Scenario 1. The use of a thermal oxidizer for the control of emissions from the glycol dehydrator still column vent represents Scenario 2.

By this renewal/modification t the CenterPoint Energy Gas Transmission Company is proposing the following changes:

1. Include a diesel air compressor engine (Emission Point SN-28);
2. Incorporate a previously permitted tank under a portable Permit No. 7777-00542-00 dated June 13, 2005 for Mississippi River Transmission Corp. as an insignificant activity; and
3. Remove an existing Smart Ash Incinerator (Emission Point SN-20) from the permit as it is no longer located at the facility.

Estimated emissions for Scenario 1 in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
PM ₁₀	5.68	5.45	- 0.23
SO ₂	0.08	0.26	+ 0.18
NO _x	201.03	201.92	+ 0.89
CO	150.41	150.56	+ 0.15
VOC *	21.16	21.37	+ 0.21

*VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
1,3-Butadiene	0.11	0.11	-
2,2,4-Trimethylpentane	0.12	0.12	-
Acetaldehyde	1.09	1.09	-
Acrolein	1.09	1.09	-
Benzene	1.46	1.46	-
Ethylbenzene	0.02	0.02	-
Formaldehyde	7.77	7.77	-
Methanol	0.35	0.35	-
n-Hexane	0.06	0.06	-

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*VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
Toluene	0.75	0.75	-
Xylene	0.04	0.04	-
Total	12.86	12.86	-

Other VOC (TPY): 8.51

Estimated emissions for Scenario 2 in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
PM ₁₀	5.94	5.71	- 0.23
SO ₂	0.10	0.28	+ 0.18
NO _x	204.40	205.29	+ 0.89
CO	153.24	153.39	+ 0.15
VOC *	21.35	21.56	+ 0.21

*VOC LAC 33:III Chapter 51 Toxic Air Pollutants (TAPs):

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	<u>Change</u>
1,3-Butadiene	0.11	0.11	-
2,2,4-Trimethylpentane	0.12	0.12	-
Acetaldehyde	1.09	1.09	-
Acrolein	1.09	1.09	-
Benzene	1.46	1.46	-
Ethylbenzene	0.02	0.02	-
Formaldehyde	7.77	7.77	-
Methanol	0.35	0.35	-
n-Hexane	0.06	0.06	-
Toluene	0.75	0.75	-
Xylene	0.04	0.04	-
Total	12.86	12.86	-

Other VOC (TPY): 8.70

Prevention of Significant Deterioration Applicability

This permit was reviewed for compliance with 40 CFR 70 and the Louisiana Air Quality Regulations, New Source Performance Standards (NSPS), and National Emission Standards for Hazardous Air Pollutants (NESHAP). Prevention of Significant Deterioration (PSD) does not apply.

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MACT requirements

This facility is a minor source of toxic air pollutants (TAPs) pursuant to LAC 33:III.Chapter 51. The provisions of LAC 33:III.5105.A, 5107.A and B, and 5113 do apply to the Ruston Storage Compressor Station because it was a major source upon promulgation of LAC 33:III.Chapter 51, Subchapter A.

Air Modeling Analysis

Emissions associated with the proposed facility/modification were reviewed by the Air Quality Assessment Division to ensure compliance with the NAAQS and AAS. LDEQ did not require the applicant to model emissions.

General Condition XVII Activities

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to Section VIII of the proposed Part 70 permit.

Insignificant Activities

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to Section IX of the proposed Part 70 permit.

Regulatory Analysis

The applicability of the appropriate regulations is straightforward and provided in the Specific Requirements section of the proposed permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are also provided in the Specific Requirements section of the proposed permit. See "SPECIFIC REQUIREMENTS" of the proposed Part 70 permit

IV. Permit Shields

There is no permit shield.

V. Periodic Monitoring

The Nitrogen Oxide, Carbon Monoxide and Oxygen stack gas concentrations of the compressor engines will be monitored by a portable analyzer semiannually. Other exemptions or non applicability are show in the table below:

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VI. Explanation for Exemption Status or Non-Applicability of a Source		
ID No:	Requirement	Notes
UNF 001	Emission Standards for Sulfur Dioxide [LAC 33:III.1502.A.3]	DOES NOT APPLY. No single point source at this facility has the potential to emit 5 tons per year or more of sulfur dioxide.
	NESHAP, Subpart HH - Oil and Natural Gas Production Facilities [40 CFR 63.760]	DOES NOT APPLY. This facility is not a Natural Gas Production Facility
	NESHAP, Subpart HHH - Natural Gas Transmission and Storage Facilities [40 CFR 63.1270(a)]	DOES NOT APPLY. This facility is not a major source of HAP emissions.
EQT 001 SN-01 Compressor Engine	NSPS, Subpart JJJJ - Stationary Spark Ignition Internal Combustion Engines [40 CFR 60.4230(a)(4)]	DOES NOT APPLY. The engine is a lean burn engine which was manufactured before July 1, 2007.
	NESHAP, Subpart ZZZZ - Stationary Reciprocating Internal Combustion Engines [40 CFR 63.6590(b)(3)]	EXEMPT. This engine is an existing 2-stroke lean burn engine.
	Control of Emissions of Organic Compounds - Pumps and Compressors [LAC 33:III.2111]	DOES NOT APPLY. This compressor does not contact VOC with a vapor pressure greater than 1.5 psia.
EQT 012 SN-26 Generator	NSPS, Subpart JJJJ - Stationary Spark Ignition Internal Combustion Engines [40 CFR 60.4230(a)(4)]	DOES NOT APPLY. This is an emergency engine manufactured before January 1, 2009.

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VI. Explanation for Exemption Status or Non-Applicability of a Source		
ID No:	Requirement	Notes
	NESHAP, Subpart ZZZZ – Stationary Reciprocating Internal Combustion Engines [40 CFR 63.6590(b)(3)]	EXEMPT. This engine is an existing 2-stroke rich burn emergency engine.
SN-18 Fugitives	Control of Emissions of Organic Compounds [LAC 33:III.2121.A]	DOES NOT APPLY. This facility is not a natural gas processing plant.
SN-19 Truck Loading	Control of Emissions of Organic Compounds from VOC Loading [LAC 33:III.2107.A.1]	DOES NOT APPLY. This facility does not have a throughput of more than 20,000 gallons per day.
EQT 010 SN-22 Methanol Tank EQT 015 SN-27 Gasoline Tank	NSPS, Subpart Kb – Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 [40 CFR 60.110b(a)]	DOES NOT APPLY. Tanks have a nominal capacity less than 75 m ³ .
EQT 016 SN-28 Air Compressor	NSPS, Subpart IIII - Stationary Spark Ignition Internal Combustion Engines [40 CFR 60.4200(a)(2)(i)]	DOES NOT APPLY. The engine was manufactured before April 1, 2006.

VII. Streamlined Requirements			
Unit or Plant Site	Programs Being Streamlined	Stream Applicability	Overall Most Stringent Program
NA			

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VIII. Glossary

Best Available Control Technologies (BACT) - An emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under this part which would be emitted from any proposed major stationary source or major modification which the administrative authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combustion techniques for control of such pollutant.

Carbon Monoxide (CO) – A colorless, odorless gas which is an oxide of carbon.

Grandfathered Status- Those facilities that were under actual construction or operation as of June 19, 1969, the signature date of the original Clean Air Act. These facilities are not required to obtain a permit. Facilities that are subject to Part 70 (Title V) requirements lose grandfathered status and must apply for a permit.

Hydrogen Sulfide (H₂S) - A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the action of acids on metallic sulfides, and is an important chemical reagent.

Maximum Achievable Control Technology (MACT) - The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

New Source Review (NSR) - A preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C ("Prevention of Significant Deterioration of Air Quality") and D ("Nonattainment New Source Review").

Nitrogen Oxides (NO_x) - Compounds whose molecules consists of nitrogen and oxygen.

Nonattainment New Source Review (NNSR) - A New Source Review permitting program for major sources in geographic areas that do not meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. Nonattainment NSR is designed to

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ensure that emissions associated with new or modified sources will be regulated with the goal of improving ambient air quality.

Organic Compound - Any compound of carbon and another element. Examples: Methane (CH_4), Ethane (C_2H_6), Carbon Disulfide (CS_2)

Part 70 Operating Permit- Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit: ≥ 10 tons per year of any toxic air pollutant; ≥ 25 tons of total toxic air pollutants; and ≥ 100 tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM_{10} - Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) - The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) – A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide (SO_2) – An oxide of sulphur.

Title V permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) - Any organic compound which participates in atmospheric photochemical reactions; that is, any organic compound other than those which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.